

# EC3B

## 7.5 WATT WIDE INPUT DC-DC CONVERTERS



### Features

- 7.5W Isolated Output
- Efficiency to 82%
- 2:1 Input Range
- Regulated Outputs
- Pi Input Filter
- Continuous Short Circuit Protection

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT NO LOAD | INPUT CURRENT FULL LOAD | % EFF. | CASE |
|--------------|---------------|----------------|----------------|-----------------------|-------------------------|--------|------|
| EC3B01       |               | 5 VDC          | 1500 mA        | 7.5 mA                | 820 mA                  | 76     |      |
| EC3B02       |               | 12 VDC         | 625 mA         | 7.5 mA                | 780 mA                  | 80     |      |
| EC3B03       |               | 15 VDC         | 500 mA         | 7.5 mA                | 780 mA                  | 80     |      |
| EC3B04       | 9-18 VDC      | ±12 VDC        | ±310 mA        | 12 mA                 | 775 mA                  | 80     | B    |
| EC3B05       |               | ±15 VDC        | ±250 mA        | 12 mA                 | 780 mA                  | 80     |      |
| EC3B06       |               | ±5 VDC         | ±750 mA        | 7.5 mA                | 820 mA                  | 76     |      |
| EC3B07       |               | 3.3 VDC        | 1500 mA        | 7.5 mA                | 557 mA                  | 74     |      |
| EC3B11       |               | 5 VDC          | 1500 mA        | 5 mA                  | 400 mA                  | 78     |      |
| EC3B12       |               | 12 VDC         | 625 mA         | 5 mA                  | 380 mA                  | 82     |      |
| EC3B13       |               | 15 VDC         | 500 mA         | 5 mA                  | 380 mA                  | 82     |      |
| EC3B14       | 18-36 VDC     | ±12 VDC        | ±310 mA        | 7.5 mA                | 385 mA                  | 81     | B    |
| EC3B15       |               | ±15 VDC        | ±250 mA        | 7.5 mA                | 385 mA                  | 81     |      |
| EC3B16       |               | ±5 VDC         | ±750 mA        | 7.5 mA                | 400 mA                  | 78     |      |
| EC3B17       |               | 3.3 VDC        | 1500 mA        | 5 mA                  | 271 mA                  | 76     |      |
| EC3B21       |               | 5 VDC          | 1500 mA        | 2 mA                  | 200 mA                  | 78     |      |
| EC3B22       |               | 12 VDC         | 625 mA         | 2 mA                  | 192 mA                  | 81     |      |
| EC3B23       |               | 15 VDC         | 500 mA         | 2 mA                  | 192 mA                  | 81     |      |
| EC3B24       | 36-72 VDC     | ±12 VDC        | ±310 mA        | 3 mA                  | 192 mA                  | 81     | B    |
| EC3B25       |               | ±15 VDC        | ±250 mA        | 3 mA                  | 192 mA                  | 81     |      |
| EC3B26       |               | ±5 VDC         | ±750 mA        | 3 mA                  | 200 mA                  | 78     |      |
| EC3B27       |               | 3.3 VDC        | 1500 mA        | 3 mA                  | 136 mA                  | 76     |      |

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC

### Specifications

#### INPUT SPECIFICATIONS:

|                          |           |        |
|--------------------------|-----------|--------|
| Input Voltage Range..... | 12V ..... | 9-18V  |
|                          | 24V ..... | 18-36V |
|                          | 48V ..... | 36-72V |
| Input Filter.....        | Pi Type   |        |

#### OUTPUT SPECIFICATIONS:

|                                                 |                         |                |
|-------------------------------------------------|-------------------------|----------------|
| Voltage Accuracy.....                           | ± 2.0% max.             |                |
| Voltage Balance (Dual).....                     | ± 1.0% max.             |                |
| Temperature Coefficient.....                    | ± 0.05%/°C              |                |
| Ripple and Noise, 20MHz BW.....                 | 3.3V / 5V.....          | 100mV p-p max. |
|                                                 | 12V / 15V.....          | 1% p-p max.    |
| Short Circuit Protection.....                   | Continuous              |                |
| Line Regulation, Single/Dual <sup>1</sup> ..... | ± 0.5%                  |                |
| Load Regulation, Single <sup>2</sup> .....      | ± 0.5%                  |                |
|                                                 | Dual <sup>3</sup> ..... | ± 1.0%         |

#### GENERAL SPECIFICATIONS:

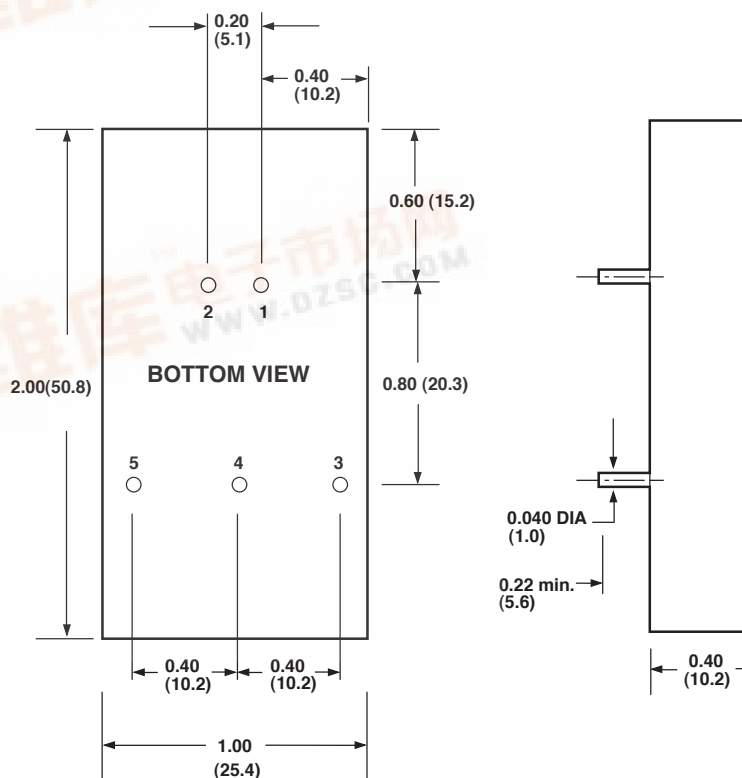
|                                  |                                                 |  |
|----------------------------------|-------------------------------------------------|--|
| Efficiency.....                  | See Table                                       |  |
| Isolation Voltage.....           | 1500 VDC min.                                   |  |
| Isolation Resistance.....        | 10 <sup>9</sup> ohms                            |  |
| Switching Frequency.....         | 100KHz, min.                                    |  |
| Operating Temperature Range..... | -25°C to + 71°C                                 |  |
| Case Temperature.....            | 100°C max.                                      |  |
| Cooling.....                     | Free-Air Convection                             |  |
| Storage Temperature Range.....   | -40°C to + 100°C                                |  |
| Dimensions .....                 | 2 x 1 x 0.4 inches<br>(50.8 x 25.4 x 10.2mm)    |  |
| Case Material.....               | Black Coated Copper With<br>Non-Conductive Base |  |
| Weight.....                      | 0.35g                                           |  |

#### NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Measured From Full Load to 1/4 Load

### CASE B

All Dimensions In Inches(mm)  
Tolerance .xx= ±0.04, .xxx= ±0.010



#### PIN CONNECTION

| Pin | Function  |
|-----|-----------|
| 1.  | + Input   |
| 2.  | - Input   |
| 3.  | + Output  |
| 4.  | Common/NP |
| 5.  | - Output  |

\*NP=NO PIN